

**REMARKS**

Claims 1-5, 7-11 and 29-38 are pending. Claims 6 and 12-28 were previously canceled. Claims 1, 29 and 36 have been amended herein. No new material has been added. Applicants respectfully request reconsideration of the claims in view of the following remarks.

Claims 1-5, 29-33, and 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0248339 to Lung ("Lung").

Claims 1-5, 7, 29-34, and 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0126925 to Rodgers, et al. ("Rodgers").

Claims 7 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No 2004/0248339 in view of Ha, et al. ("Ha") (previously cited in IDS).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rodgers in view of U.S. Patent No. 6,806,528 to Lee, et al. ("Lee").

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lung and Ha as applied to claim 7 above, and further in view of Lee.

Applicants' claim 1 has been amended to recite "the layer of phase change material has a *substantially planar top surface*, and the layer of phase change material has a *substantially uniform thickness*." Lung does not disclose a layer of phase change material that has a "substantially planar top surface." Rather, Lung discusses a layer of phase change material recessed in a trench to form a top layer that is located on both the bottom and the sidewalls of the trench.

Further, Rodgers does not disclose a layer of phase change material that has a “substantially uniform thickness.” Rather, Rodgers discusses a layer of phase change material that has a large thickness where it connects with the conductive film, and a smaller thickness in a separate area in which it contacts the electrode. Because Lung and Rodgers do not disclose “each and every element as set forth in the claim” as required by MPEP § 2131 (quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)), neither Rodgers nor Lung anticipates Applicants’ claim 1. Because of this, Applicants respectfully request that the rejection of Applicants’ claim 1 be withdrawn.

Claims 2-5 and 7-8 depend from and further limit independent claim 1 in a patentable sense. Accordingly, Applicants respectfully request that the rejections of claims 2-5 and 7-8 be withdrawn as well.

Applicants’ Claim 29 has been amended to recite “the electrode extending away from *a substantially planar top surface of the phase change material layer* in a direction generally perpendicular to a major surface of the substrate, *the electrode not being coterminous with the phase change material.*” Lung does not disclose “a substantially planar top surface of the phase change material layer.” Rather, Lung discusses a phase change material layer whose top surface rests on the fourth dielectric layer (Lung Ref. No. 800) and also on the second dielectric layer (Lung Ref. No. 400).

Further, Rodgers does not disclose “the electrode not being coterminous with the phase change material.” Rodgers discusses an electrode (Rodgers Ref. No. 38) that is aligned with the entire phase change material. Accordingly, because “each and every element” (MPEP §2131) is not disclosed in neither Lung nor Rodgers, these references cannot anticipate Applicants’ claim 29, and Applicants respectfully request that the rejection of Applicants’ claim 29 be withdrawn.

Claims 30-35 depend from and further limit independent claim 29 in a patentable sense. Accordingly, Applicants respectfully request that the rejections of claims 30-36 be withdrawn as well.

Applicants' claim 36 has been amended to recite "a layer of phase change material with *a substantially planar top surface and a substantially uniform thickness.*" Lung does not disclose a layer of phase change material with "a substantially planar top surface." Instead, Lung discusses a phase change material whose top surface moves from one height to another as it goes into a trench to connect with the conductive film.

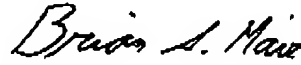
Further, Rodgers does not disclose "a layer of phase change material with...a substantially uniform thickness." Rather, the phase change material discussed in Rodgers has at least two areas of separate thickness. One area is where the phase change material connects with the conductive film, and the other area is where the phase change material connects to the electrode. Accordingly, because "each and every element" is not disclosed by either Lung or Rodgers, these references cannot anticipate Applicants' claim 36, and Applicants respectfully request that the rejection of Applicants' claim 36 be withdrawn.

Claims 37-38 depend from and further limit independent claim 36 in a patentable sense. Accordingly, Applicants respectfully request that the rejections of claims 37-38 be withdrawn as well.

In view of the above, Applicants respectfully submit that the application is in condition for allowance and request that the Examiner pass the case to issuance. If the Examiner should have any questions, Applicants request that the Examiner contact Applicants' agent at the address below. No fee is believed due in connection with this filing. However, in the event that there are any fees due, please charge the same, or credit any overpayment, to Deposit Account No. 50-1065.

Respectfully submitted,

April 2, 2007



Brian A. Mair  
Reg. No. 58,233  
Agent for Applicants

Slater & Matsil, L.L.P.  
17950 Preston Rd., Suite 1000  
Dallas, TX 75252  
Tel: 972-732-1001  
Fax: 972-732-9218